Dr. McCollough is the Director of Mayo Clinic's CT Clinical Innovation Center, where she supervises a multi-disciplinary, multi-investigator team of physicians, scientists, research fellows, and graduate students. With her physician and scientist collaborators, she evaluates and develops new CT imaging technology and clinical applications, with a particular focus on quantitative applications of CT. She is internationally recognized for her contributions to the fields of CT imaging physics and technology; radiation dosimetry, effects and protection; and imaging of the atherosclerotic plaque using x-ray based techniques, including dual-energy methods. She has served in many committees and leadership positions in the radiology, medical physics and radiation protection communities, including the International Commission on United and Measurements (ICRU), International Council on Radiation Protection (ICRP), National Council on Radiological Protection (NCRP), American Association of Physicists in Medicine (AAPM), Radiological Society of North America (RSNA), American College of Radiology (ACR) and the International Electrotechnical Commission (IEC). She is a full professor of radiological physics and a fellow of the AAPM and ACR.